

timely warnings prevented any damage of consequence. Reported losses were only \$4,500, against which \$25,000 worth of property was saved through the warnings. The flood in the Ouachita River of Arkansas was unimportant. It was well forecast, no losses of consequence occurred, and all cattle were removed from the bottoms.

East of the Mississippi River and south of Tennessee all rivers were also in flood early in the month, except the Alabama and tributaries, which, however, rose to flood stage about the middle of the month, following the heavy rains of February 12 and 13. The floods in the Tombigbee and Black Warrior Rivers of Alabama were more pronounced, the crest stages ranging from 9 to 16 feet above flood stage.

With but a single exception these floods were properly forecast and the total of reported losses was only \$7,600, while the value of property saved was \$11,500. It should be stated, however, that the floods occurred during a season of the year when not much property is exposed to damage from ordinary flood.

There were moderate floods in the lower Sabine and lower Trinity Rivers of Texas about the middle of the month. They were well forecast and no damage was reported. The upper Sabine River was in flood and rising at the close of the month.

The Guadalupe and Nueces Rivers of Texas were also in moderate flood from February 23 to 25, inclusive, without damage of consequence.

#### Flood stages during February, 1923.

River and station.	Flood stage.	Above flood stages—dates.		Crest.	
		From—	To—	Stage.	Date.
ATLANTIC DRAINAGE.					
Cape Fear:	<i>Feet.</i>			<i>Feet.</i>	
Elizabethtown, N. C.....	22	8	8	22.0	8
Santee:					
Rimlini, S. C.....	12	2	2	12.5	2
Do.....	12	7	19	14.5	11
Do.....	12	28	(*)	12.0	28
Ferguson, S. C.....	12	(1)	4	12.3	1
Do.....	12	8	25	13.5	12-13
Broad:					
Blairs, S. C.....	15	28	(*)	15.2	28
Saluda:					
Chappels, S. C.....	14	28	(*)	16.2	28
Oconee:					
Milledgeville, Ga.....	22	14	14	23.7	14
Do.....	22	28	(*)	24.0	28
Ocmulgee:					
Abbeville, Ga.....	11	(1)	1	11.3	1
Do.....	11	20	23	11.8	21-22
EAST GULF DRAINAGE.					
Apalachicola:					
Blountstown, Fla.....	15	8	22	18.7	17
Alabama:					
Montgomery, Ala.....	35	16	16	35.3	16
Selma, Ala.....	35	17	18	36.2	17-18
Cahaba:					
Centerville, Ala.....	25	13	14	30.0	13
Tombigbee:					
Lock No. 4, Ala.....	39	(1)	3	45.1	1
Do.....	39	8	25	54.8	20
Black Warrior:					
Lock No. 10, Ala.....	46	14	16	55.4	14
Pearl:					
Jackson, Miss.....	20	(1)	1	20.5	1
Do.....	20	4	23	30.7	16
Columbia, Miss.....	18	13	(*)	20.6	28
West Pearl:					
Pearl River, La.....	13	13	(*)	15.0	27-28
MISSISSIPPI DRAINAGE.					
Ohio:					
Cloverport, Ky.....	40	3	9	43.9	6
Evansville, Ind.....	35	(1)	13	42.2	7-8
Henderson, Ky.....	33	(1)	13	40.2	8-9
Dam No. 48, Ind.....	42	1	13	48.7	9
Mount Vernon, Ind.....	35	2	14	41.3	9
Shawneetown, Ill.....	35	2	15	42.3	9
Little Kanawha:					
Glenville, W. Va.....	23	2	2	23.8	2
Elk:					
Clay, W. Va.....	18	2	2	19.6	2
Big Sandy:					
Pikeville, Ky.....	35	3	3	39.0	3

#### Flood stages during February, 1923—Continued.

River and station.	Flood stage.	Above flood stages—dates.		Crest.	
		From—	To—	Stage.	Date.
MISSISSIPPI DRAINAGE—continued.					
Kentucky:	<i>Feet.</i>			<i>Feet.</i>	
Beattyville, Ky.....	30	3	4	36.5	4
Green:					
Lock No. 6, Ky.....	30	3	7	38.4	5
Lock No. 4, Ky.....	33	( <sup>1</sup> )	10	44.7	6
Lock No. 2, Ky.....	34	( <sup>1</sup> )	21	42.4	10-11
Cumberland:					
Carthage, Tenn.....	40	5	8	43.0	6
Nashville, Tenn.....	40	4	11	43.5	9
Clarksburg, Tenn.....	46	3	12	48.6	5
Tennessee:					
Knoxville, Tenn.....	12	4	6	16.8	5
Do.....	12	14	15	13.9	15
Rockwood, Tenn.....	20	6	6	21.4	6
Florence, Ala.....	18	9	11	18.2	11
Riverton, Ala.....	32	3	19	37.5	11
Holston:					
Rogersville, Tenn.....	14	4	4	17.0	4
North Fork:					
Mendota, Va.....	8	3	4	16.0	3
Do.....	8	13	14	10.0	13
Clinch:					
Spears Ferry, Va.....	20	3	4	22.0	3
Clinton, Tenn.....	25	4	6	32.2	5
Mississippi:					
New Madrid, Mo.....	34	11	15	34.3	13-14
St. Francis:					
Marked Tree, Ark.....	17	4	(*)	19.2	16-19
Petit Jean:					
Danville, Ark.....	20	4	5	21.5	4
Do.....	20	27	(*)	21.8	28
White:					
Calico Rock, Ark.....	18	2	4	27.3	2
Batesville, Ark.....	23	2	6	32.4	3
Newport, Ark.....	26	4	8	29.5	5
Georgetown, Ark.....	22	5	17	25.0	9-10
Black:					
Black Rock, Ark.....	14	( <sup>1</sup> )	18	21.7	4
Cache:					
Patterson, Ark.....	9	( <sup>1</sup> )	20	10.8	3-4
Tallahatchie:					
Swan Lake, Miss.....	25	9	(*)	28.4	16-18
Sulphur:					
Ringo Crossing, Tex.....	20	( <sup>1</sup> )	1	21.2	1
Finley, Tex.....	24	5	9	24.7	7
Ouachita:					
Camden, Ark.....	30	3	11	35.1	7
WEST GULF DRAINAGE.					
Sabine:					
Logansport, La.....	25	27	(*)	26.0	28
Bon Wier, Tex.....	20	13	15	20.3	14
Trinity:					
Liberty, Tex.....	25	13	15	25.4	14
Guadalupe:					
Gonzales, Tex.....	22	23	23	25.2	23
Victoria, Tex.....	16	25	25	18.2	25
Nueces:					
Three Rivers, Tex.....	37	23	25	41.6	24

<sup>1</sup> Continued from January.

<sup>2</sup> Continued into March.

#### MEAN LAKE LEVELS DURING FEBRUARY, 1923.

By UNITED STATES LAKE SURVEY.

[Detroit, Mich., March 7, 1923.]

The following data are reported in the "Notice to Mariners" of the above date:

Data.	Lakes. <sup>1</sup>			
	Superior.	Michigan and Huron.	Erie.	Ontario.
Mean level during February, 1923:	<i>Feet.</i>	<i>Feet.</i>	<i>Feet.</i>	<i>Feet.</i>
Above mean sea level at New York.....	601.60	578.81	570.88	244.47
Above or below—				
Mean stage of January, 1923.....	-0.26	-0.21	-0.29	-0.03
Mean stage of February, 1922.....	+0.22	-0.41	-0.29	-0.23
Average stage for February, last 10 years.....	-0.30	-1.18	-0.77	-1.05
Highest recorded February stage.....	-0.88	-3.91	-2.87	-2.20
Lowest recorded February stage.....	+0.84	-0.35	+0.25	+0.64
Average relation of the February level to—				
January level.....		0.00	-0.10	0.00
March level.....		-0.10	-0.10	-0.20

<sup>1</sup> Lake St. Clair's level: In February, 573.07 feet.